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REGIONAL DISPARITIES OF INCOMES IN SOMOGY COUNTY

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ABSTRACT

Somogy County has always been an underdeveloped rural area of Hungary with a sparse spatial structure. Its socio-economic indicators are still among the weakest ones in the country. This peripheral area in the western part of the Southern Transdanubian Region is also internally differentiated. Regional disparities and the polarization of development are reflected in average income levels. When per capita income categories of settlements were projected on a cartogram, a specific spatial pattern appeared. The prominence of the county seat, of settlements by Lake Balaton, and of several small towns shows their relatively central position, while they are located predominantly on the edges of the county. Smaller villages predominantly occupied the extremes. Some were on the top of the income categories, but most of them were in the low end. Some of them are among the poorest villages of Hungary. Examining the sources of income it is clear that higher levels of income originate from wages, salaries, or from the profit of investments, while low incomes come in the form of social benefits from the state. This shows the role of social structure combining with regional position in forming the income-gap. Demographical processes such as the migration of the qualified labor force to centres and the higher birth-rate at the margins of society may lead to further widening of regional differences. Development continues, despite the crisis, in the centres, while regional ghettoisation escalates problems on the periphery.
Keywords: regional disparities, income, spatial texture, centre–periphery relations

INTRODUCTION

Spatial disparities can be described by several methods, although the system of the regional statistical data imposes considerable limitations. Statistics on GDP in Hungary, for example, are only available at the county-level, thus, this indicator is not suitable for the analysis of the micro-level regional differences. By quite a few indicators, the smallest aggregating unit is the micro-region. The centre-periphery contexts can clearly be shown by income disparities directly determining standards of living, and these are also available at the level of settlements (*Rechnitzer*, 2008). Beyond the concentration of well-paid jobs in the cities these are also related to the willingness to commute and to the demographic structure.

The income differences in Hungary are reduced by a considerable social net. The system of the various government aids, benefits, allowances and pensions imposes a whacking burden on the state and, indirectly, on the economy as well. These social incomes show regional differences both throughout the country and on the lower spatial levels, too. The regional difference appearing in the wage incomes and the social benefits, that is, the configuration based on the income types, may be in correlation with the social structure as well as the economical positions of the settlements.

Somogy County by the last statistics could only overtake the traditional depressed Szabolcs-Szatmár in the per capita personal income after taxing. This, together with the above, makes its peripheral position in the regional and economic structure of Hungary clear (*Csatári*, 2005). The rolling area between Lake Balaton and the River Drava – which is the western part of the Southern Transdanubian Region – has always been one of the underdeveloped regions of Hungary with a sparse spatial structure. Not even capitalist modernisation and socialist development was able to change this. Somogy County comprising almost the whole land of Inner- and Outer Somogy is the fourth largest county, but it is also the most sparsely populated. Population density is only half of the national average. Its demography has long been characterised by natural decrease and a mainly negative migration balance.

It has the third or fourth lowest Human Development Index (*Csite and Németh*, 2007). The urbanization ratio is 50%, which is one of the lowest values in Hungary, however, on the basis of their population and infrastructure half of the cities could only be listed among bigger villages only. Half of the villages are micro-settlements with a decreasing population, providing unfavourable standards of living (*Beluszky and Sikos*, 2007). Two-thirds (i.e. 160) of the settlements in Somogy are at a disadvantage, so they are among the recipients of higher regional development benefits (*Faluvégi*, 2003). This again ranks the county in the fourth place regarding the number and ratio of underdeveloped villages and their population.

Considering the ability to create economic value, Somogy is the fourth weakest again. The per capita GDP is 61.7% of the national value, and only 38.6% of the EU27 average. Moreover, this value has decreased by about 7% compared to the national average and Somogy has fallen back by three positions in the county ranking since 2004. So the development trend of the county shows a fast decline (*Nagy*, 2005). GDP figures are published only on the county level, so this indicator can not be applied on a micro level analysis of regional differences.

On the level of settlements this rural area, of course, is also differentiated. Our paper aims to examine the structure of regional income disparities by the average income level and the income sources of the settlement's population and makes an attempt to point out the causes and the social factors influencing them.

MATERIALS AND METHODS

In our analysis, we have relied on the databases of the Central Statistical Office and the Income Index calculations created by CID for marketing purposes. Both databases include the average per capita income data of the population of 245 settlements. CSO data comes from the National Tax and Customs Administration (NAV) of Hungary. The figures are based on earned income and profit of investments after taxes. The II of CID calculates the total disposable incomes based on wage and profit incomes as well as social benefits received. The income levels of settlements are represented in a cartogram. Naturally the figures of the towns were generally higher than those of the smaller settlements, they were analysed separate. However, it was the smaller settlements that produced the highest and the lowest income level, too.

We compared the CID total income values with the CSO data referring exclusively to incomes after taxing. We calculated the difference and the ratio of

wage incomes and social benefits, which shows the relative dependency of population from the state. We typified the settlements by income level and the income source. We created three categories in each aspect, and thus created nine categories altogether. The settlements in the categories were demonstrated in tables and their types were represented in a cartogram to study the spatial texture. The social status of micro-settlements with extreme incomes was analysed further by comparing data of the lowest and highest income deciles. The territorial distribution of "rich" and "poor" villages was represented in a cartogram. The most typical demographic and economic data were made visible with the use of diagrams. Analysing these, the possible reasons of differences have been identified.

RESULTS AND DISCUSSION

The monthly per capita wage and profit income of the population in the county by the CSO shows great differences on the level settlements. The county average was around 44 thousand, which ranged 6-64 thousand forints. The income gap had the value of 10.4. The monthly per capita total spendable income by CID is 73 thousand forints, which would equal 270 euros calculating with the current 270 forint-euro rate. The average salaries of the settlements range are around 34-107 thousand forints. The value of the income gap between the two extremes is 3.2. The two series showed a 0.8 correlation with each other, which can be perceived as a difference between the spatial distribution of social benefits and incomes.

The Robin Hood index was calculated on the basis of the 245 settlements, and its value was by CSO data 11.2 and the by CID data 6.6. The difference between the two values shows the significant cohesion effect of social benefits in Hungary. It should not be forgotten, however, that the initial database contains income received in the form of social benefits, with the aim of decreasing inequalities.

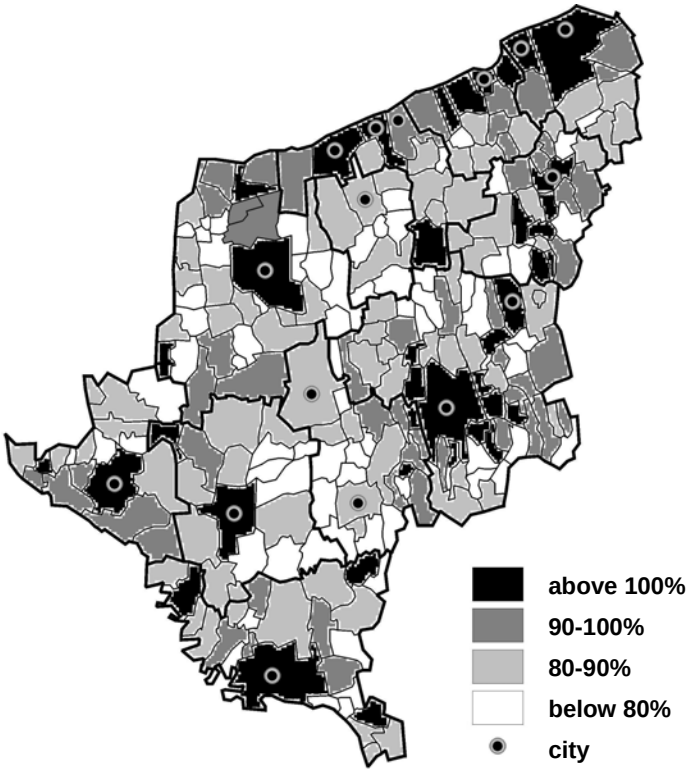
The spatial distribution of the income level categories of settlements is illustrated in *Figure 1*. A remarkable feature of the territorial texture is the marginal location of settlements with higher incomes. The prominence of Lake Balaton in the northern area and that of the county seat in the east are clear. The line of small towns and medium sized villages near the south-western border constitutes another zone with better income levels. There is a further belt with higher incomes along the eastern border between Kaposvár and Siófok. The negative pole lies in the middle of the county like a north-south axis of poverty, where even the towns are far below the average incomes. (They became towns only recently.) The specifically inverse texture of Somogy can partly be explained by its natural boundaries and partly by the marginal position of the main transportation lines. Let us investigate the two major areas in more detail.

Kaposvár is the second largest settlement in the South Transdanubian Region. The urban region around it even stretches into Tolna County in the direction of Dombóvár. Although Kaposvár managed to attract some regional functions, it plays a subordinate role to Pécs. In terms of administrative roles it is the 11th most important in the Hungarian urban network but its economic importance places it only in the 16th position (*Csapó*, 2008). Although its situation can be considered

good on the basis of its state of development, in dynamic indicators it is among the tail-enders. Together with Salgótarján and Békéscsaba it is the greatest "loser" according to *Lengyel and Rechnitzer* (2000)'s examination of competitiveness. Despite the success propaganda of the city administration it has continued backsliding. This is consistent with the relatively low income, only with Miskolc, Hódmezővásárhely and Salgótarján having lower values among municipal towns. Kaposvár could only overtake Salgótarján in the increase of wages.

Figure 1

Per capita net income of settlements in Somogy



The reason is that as a result of the Hungarian transportation network development Kaposvár lies far from the modern mainlines of traffic, and the poor state of secondary main roads makes it difficult to reach it. The Dombóvár-Gyékényes railway would also need renovations, though its importance is subordinate now, as the once dominant role of railways in the spatial structure has now been strongly reduced. The civilian use of the Taszár military airfield could have been an opportunity for Kaposvár, however, it did not fit either national or regional interests, so it remained only an idea. The M9 is expected to reach the city only by 2015, leaving Kaposvár the last among county seats to be connected to the national highway network. Even so, it is going to be a modern connection only to the east, as the western part, which could promote connections to

the EU, is expected to be continued only around 2020. Till then the county has to manage with old, narrow roads with speed limits and slow traffic through populated areas. Potential investors might know this, as they avoid the city, while its internal resources are not sufficient for dynamic development.

The agglomerating zone along the Lake Balaton area with its special tourist roles is in internationally prominent position. The second most important branch of the Saltire (Saint Andrew's Cross) determining the development of Hungary runs here. It is the Adriatic axis connecting Budapest with Padania (*Tóth at al.*, 2005). Its significance will grow with the strengthening of the north-eastern Budapest-Kiev-Moscow axis. Due to the M7 motorway and the Zagreb-Budapest railway line it has an outstanding position in transportation geography. Balaton Airport can be quickly reached from most of its area. This is the most dynamically developing zone of the county. In particular Siófok is outstanding: it is relatively near to the capital, and it is in the forefront among medium-sized towns. Virtually, it can be considered to be the dynamic growth pole of the county. As a result of its relatively small size and location its regional "spread" effect covers only the north-eastern part of the county. The high-income belt between Kaposvár and Siófok is partly attributable to it.

We constituted three categories each based on the income level and the proportion of calculated social benefits, which we got from the difference of the two income data lines. The segment of the triple classification based on the two 2 criteria creates nine categories altogether (*Figure 2*). We tried to draw the boundaries between the categories along main fault lines of the graph after experimenting with several options. Finally, we decided to consider the values on the figure below to be the most suitable, since we may have formed a roughly identical group regarding the number of elements they contain. The 72 thousand forints having found as the borderline between high and medium income is roughly comparable to the county average, as opposed to the 58 thousand forints, which was on the border of medium and low incomes and equals the minimum net salary back then. To be noticed, that 66 thousand forints were the subsistence level in 2008 according to the CSO, which was typical only in 50 settlements, even though 70% of the population lives in these villages. This correlation is represented by the trend line in our *Figure 2*, namely that high income mainly comes from high wages and investment, while low income usually means social benefits. The position of the data dots is more or less scattered, and there are just few that go against the main trend.

The accurate number of the settlements assigned to each category is shown in *Table 1*, where cities are identified too. Based on the number of the settlements, the most typical was mixed and medium income with more than 25%. Those living on low social benefits constitute 20%, but villages living on medium wage incomes were over 15% too. 28 of the high wage income group composed of more than 10% of the total but two thirds of the cities can be found in this category. The other groups are less significant with two cities in the other high income categories. The per capita income of three cities shows only medium and below-average figures. Their effort to become urbanized may be problematic based on the criteria including income levels though other factors such as their long-term regional influence stand for them (*Beluszky and Győri*, 2006).

Figure 2

Settlements in the space of income level and income source

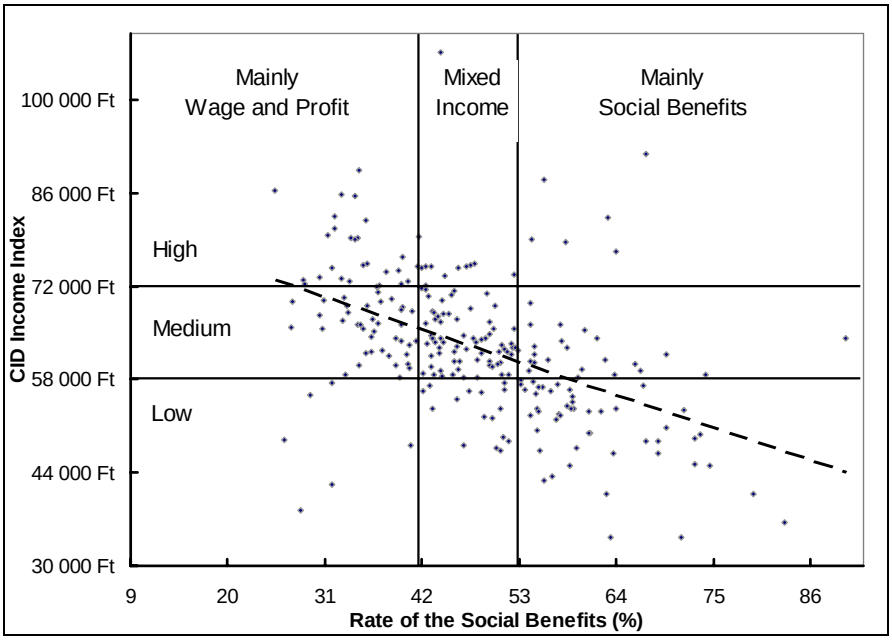


Table 1

The distribution of settlements and population in the income categories

	Mainly wage and profit	Mixed income	Mainly social benefits	Sum
Settlements				
High income	28 (11)	10 (1)	6 (1)	44 (13)
Medium income	40 (1)	69 (2)	22	131 (3)
Low income	6	16	48	70
Sum	74 (12)	95 (3)	76 (1)	245 (16)
Population				
High income	51.5	2.7	1.1	55.4
Medium income	14.4	17.8	3.0	35.1
Low income	0.4	2.4	6.7	9.5
Sum	66.4	22.9	10.8	100

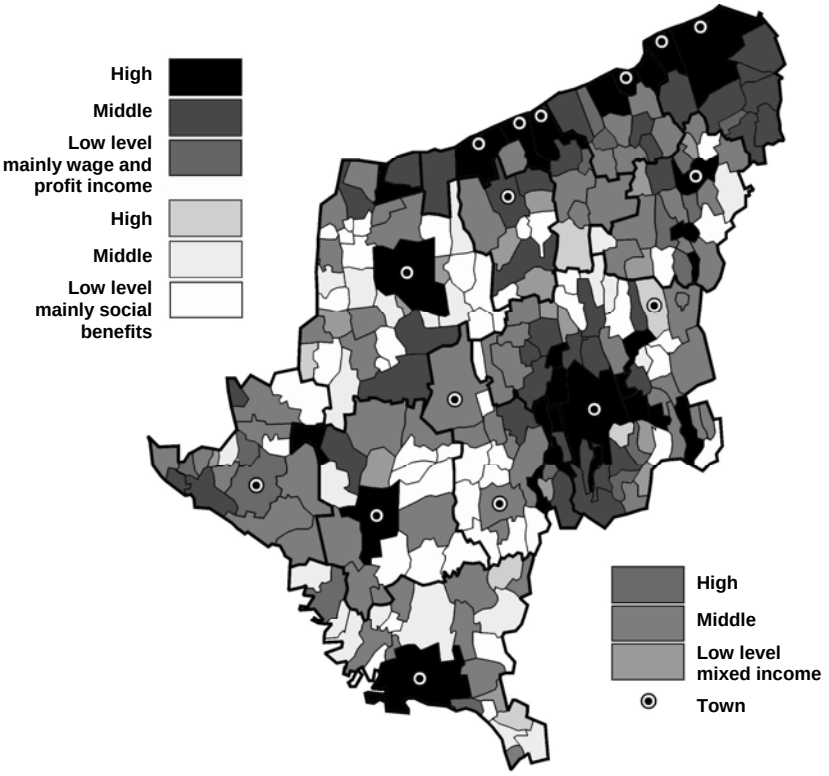
Analysing the population data shows a different picture. The 28 high-wage income settlements accommodate 50% of the population. All big towns belong here including some villages of the agglomeration of Kaposvár and settlement groups around Lake Balaton. These are the economic and population centres of the

county. 15% of the population lives in 69 of the medium level mixed income and 40 of the average wage income group. The latter includes three towns too. There is considerable population in the low-income group, while the other category comprises less than 3%.

The income configuration of the county was displayed on a cartogram (*Figure 3*).

Figure 3

The Income types of the settlements in Somogy County



The "healthy" areas of the county are outlined in this figure, where people sustain mainly on wages and investment profits provided by a functional economy. Another area is the underdeveloped settlements where people fall back on the low social benefits. The Balaton coastal zone with towns like Siófok as the dynamic front booster of the region, or the county seat itself together with its suburbs are in the high or further in the medium-wage group.

The income levels draw the inner and outer ring of the agglomeration of the county seat. Marcali, Nagyatád, Barcs and Tab, traditional centres of the region as well as a few small settlements are also in the high-wage income group.

The mixed-income settlements, which form the biggest group after all, show a very scattered picture. High income ones are Csurgó, a small town on the west and

some municipalities such as the list-leading Patca. Middle level mixed-income settlements constitute two thirds of the total including two towns, Nagybajom and Kadarkút, which are still considered villages even though they have been titled towns for a decade now. They are called „scantly-towns" by the settlement geographers in Hungary (*Dövényi*, 2006).

Having high income with additional social benefits does not create a considerable group, but it is an interesting phenomenon. Igal, having become a town not too long ago, is a striking example, and understandably so. A lot of senior citizens settled here with sufficient pensions to support them. Sántos is in a similar position with a high proportion of senior citizens, high pensions as well as a small proportion of dependents under working age. In the case of other settlements that have managed to reach the lower middle class status, special circumstances have lead to their rise.

The settlements of the group living mainly on social benefits with medium and low standard of living formed some coherent blocks. The most considerable group of these consists of nearly 30 villages in the southern part of the county, in the lane between Barcs and Nagybajom. The other block of 21 villages took shape around Marcali, on the western and eastern side of the micro-region. There is a small block on the northern edge of Kaposvár's micro-region, too. A few settlements of the group appear along the county's eastern border, too.

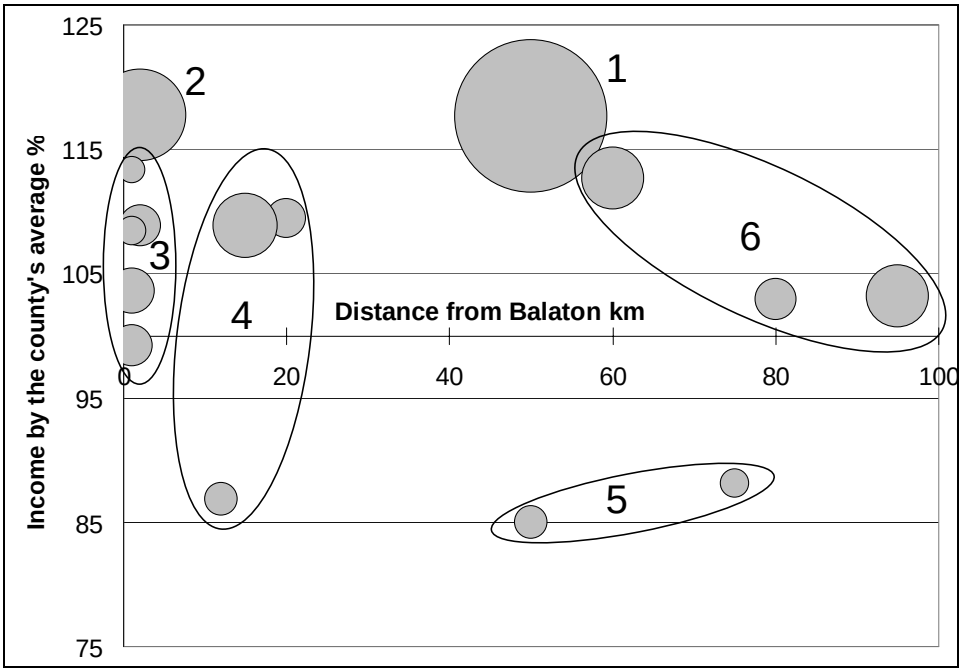
The settlements of the group living on social benefits with the lowest standard of living have the highest unemployment ratios, and the Romany ethnic group represents a considerable proportion in their population. The different aids mean the living source of the unqualified and unemployed. Between these the main component is considerable support given on the basis of the number of children, because these settlements have a youthful population structure. The dependents' high proportion contributes to the development of the low level average per capita incomes.

The blocks of these settlements inhabited by the Romanies in a considerable proportion can be interpreted as a uniform regional segregation. This creates social-ethnic ghettos where people live on a low standard of living from different aids and benefits after the children, similar to the villages in Cserehát and Ormánság (*Baranyi et al.*, 2005). There is a youthful social structure in them because of the Romanies' positive reproduction rate. The social system has been intensifying this by the effect of more children resulting in more money. The demographic transition is hampered, and several settlements exist with a growing population in the generally decreasing country. The attempts to intervene in the process were based on benefits and this has augmented the reproduction of the problem. Whole areas have given up the habit of working and normal economic morals and the communal worker status has become the perspective of the youth in some villages.

The cartogram showed the advantage of towns, most of which have indices above the average. Urban inhabitants comprising 50% of the population own 57% of the income. They earn 11.5% more than the county per capita income. The 50% living in villages have 43% of the income, which is 12% below the average. Urban incomes have also been demonstrated on the basis of their distance from the Balaton axis (*Figure 4*).

Figure 4

Cities in the space of income and distance from Lake Balaton in Somogy



The bulbs are proportional with the population; 1: Kaposvár, town with county rank; 2: Siófok, dynamic development centre; 3: Other small towns of the Balaton axe; 4: Background towns of Balaton coastal zone; 5: New micro-towns in the inner periphery; 6: Old micro-towns on the outer periphery

The strong prominence of the two largest centres, Siófok and Kaposvár, is clear. Three traditional small towns (Nagyatád, Marcali, Tab) and three towns by Lake Balaton (Fonyód, Balatonföldvár and Zamárdi) are significantly above the average. Around the average we can find the incomes of Balatonboglár and Balatonlelle, the micro-centre Barcs on the southern border, as well as the "old school town" Csurgó. Three towns, however, are more than 10% below the county average, which would place them only in the middle of the ranking, even among villages. (The two towns in central Somogy have only recently become towns.)

Henceforth we are going to deal with micro-settlements having extreme values of income. The 245 settlements of Somogy were ranked according to their per capita income. At the lower end of the list the presence of settlement with a population below 1000 seemed natural. However, it is noteworthy that the first six were also tiny villages. Moreover, more than half (i.e. 23) of the 43 settlements that have incomes above the average also belong to this category, which means one tenth of all villages. Besides the eleven towns and nine larger villages they belong to "the rich" segment of settlements in Somogy County. They were used as the top tenth of villages in our comparative investigations, and they were contrasted with

the 23 "poor" settlements. Both groups have a population of approx. 10 thousand, which means they account for three percent of the county's population respectively.

There is a twofold difference between the average income of the two extreme deciles no matter whether we consider the total income or wage and profit incomes. The latter shows a slightly higher standard deviation. Thus, one quarter of the income from the upper decile should be redistributed to "the poor" in order to level off disparities, so the value of the partial Robin Hood index calculated on the basis of the 46 settlements is 25. Compared to the county average the "rich" earn nearly nine percent better, while the poor earn 40% weaker. Based on the two databases the ratio of wage and profit and social incomes was also calculated. On the county level 37% is added to the net labour and capital income by the society. This value is 80% in the upper decile, and 150 % in the lower one. That is, both extremes are dependent on the benefits of the social network, in case of the upper one almost half of the income, while in case of the lower one much more than half of it comes from benefits.

In terms of the extreme values the villages in Somogy span the whole range of income in the Hungarian settlement network. Patca – the richest village in Somogy – is the 20th on the national list, while the tail-enders, Visnye and Kőkút, are the fifth and the sixth poorest settlements in Hungary. A threefold difference was found between them. The lower decile's strongest settlement had two-thirds of the income of the upper decile's weakest settlement, which, interpreted on the level of villages, means a 1.5 percentile value. The distribution of the richest and poorest villages in the county has not shown significant characteristics. One third of the rich villages surround Kaposvár, while one-fifth can be found between Kaposvár and Tab. The poor settlements are scattered in the central and south-eastern areas of the county, but there are some on the western border, too. It is interesting that extremes often appear side by side.

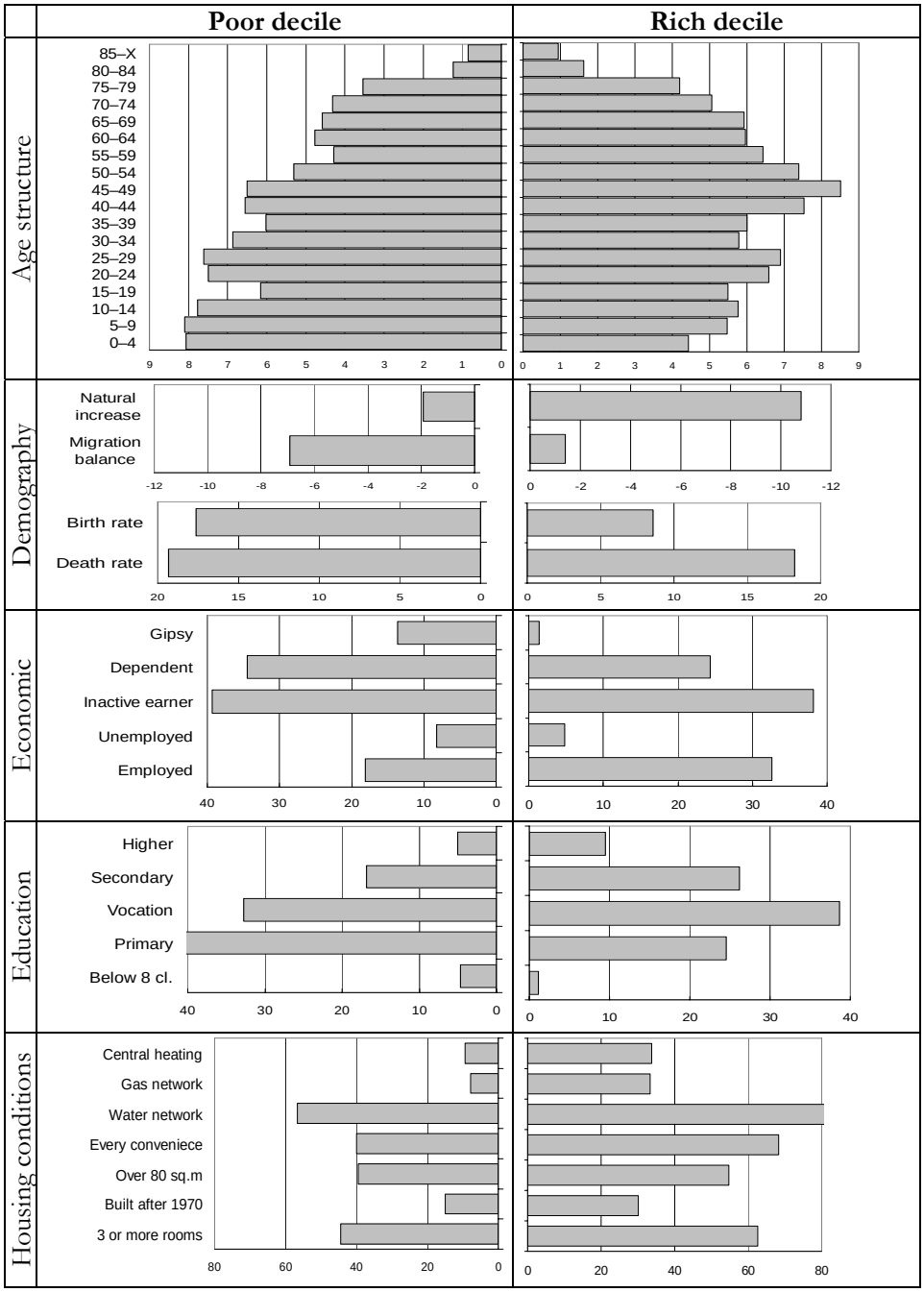
Regarding their transportation geographical position we can state that except for two rich settlements by Lake Balaton and two poor ones in north-eastern Somogy most of the two extremes are far from main transportation lines, having only a service road which makes them difficult to reach. On the basis of their socio-economic development (CSO), the bottom decile contains only undeveloped villages receiving higher regional development benefits, but the upper tenth has advanced and urbanised as well as underdeveloped villages.

Social characteristics of villages belonging to the extreme income deciles and showing significant differences are summarized in *Figure 5*. Difference in the age structure can be highlighted, where the lower decile shows the pyramid form of growing societies, while the top one represents the mushroom shape of decreasing population. This is due to the difference between demographic data.

While the upper decile is characterised by strong natural decrease and low external migration, in the lower one natural growth is only slightly negative but there is strong external migration. The gap in natural reproduction is primarily caused by higher birth rates in the lower decile, while part of the migration loss in villages of the upper decile in the vicinity of towns can be substituted by the processes of suburbanisation.

Figure 5

Some social features of the upper and lower income decile of villages



Source: Based on *Central Statistical Office data*

The indices of the lower income class regarding economic activity are much worse off. The high ratio of dependants coupled with a low employment rate is particularly conspicuous. The registered unemployment rate is also higher there. This may be related to the much higher presence of the Roma ethnic group, which – in our experience – is strongly underestimated by official statistics. From this we can conclude the process of ghettoization in villages with the lowest income levels.

It is confirmed by the much weaker values in the level of their educational attainment and in the indices of housing conditions. In poor villages the proportion of primary graduates is prominently high, in the rich ones the proportion of those with a profession is the highest, and those with higher qualifications are in a clearly visible majority. It suggests that apart from regional positions social structure also has a decisive role in regional income disparities.

CONCLUSIONS

The examination of income levels and the income sources established significant regional disparity in Somogy County. The spatial pattern has shown an outstanding advantage of the county-seat and the settlements of the Budapest-Padania axis along Lake Balaton. Several small towns have emerged and taken relatively central position in the rural areas of the region too. They have a working economy, thus, their population is able to sustain on wage income and profits deriving from their investments. Settlements with the lowest incomes are scattered mainly in the middle and south-eastern part of the county. Their economy is going through a chronic structural crisis where social benefits have become the main income for the population. These are underdeveloped rural areas characterised by unqualified labour and strong Romany ethnicity. All this, together with the seemingly positive demographical trends, signal a deepening social and ethnical ghettoization.

It is noteworthy that several tiny villages are also present among towns on the upper income level. Naturally the lowest incomes also represent themselves in these tiny villages, scattered all over the county map with the extremes side by side. This shows that besides regional positions, social structure is also a determining factor to create regional income differences. The extreme deciles of villages have shown significant differences in their social indices, which also prove the effect of social structure on income disparities. Its prominent elements are the different age structure, economic activity and the level of educational attainment, which can be enhanced by the processes of suburbanisation in villages in the proximity of towns. We can conclude that it is the conservation of social extremes which is taking place which may well result in the poor villages shifting completely to the periphery. The levelling effect of social benefits is not more than temporary help, what is more, it will only reproduce the problem with a negative chain effect, adding fuel to the fire. Long-term solution would have to be specific development of the area. Instead of giving fish to the hungry, we should rather teach them how to catch fish.

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